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10/797,840

03/10/2004

Leo M. Pedlow JR.

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EXAMINER

STANLEY, MARK P

ART UNIT

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2427

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03/25/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/797,840 | Applicant(s) PEDLOW ET AL. | |
| | Examiner MARK P. STANLEY | Art Unit 2427 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19,21-26,28-32 and 34-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19,21-26,28-32 and 34-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Miscellaneous

1. This action is in response to Amendment dated 11/16/2009. Claims 1, 9, 11, 19, 26, 32 and 41-43 have been newly amended. Claims 20, 27 and 33 have been previously canceled.

Response to Arguments

2. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant argues that defining a subset of a maximum number of potential peer terminals is not disclosed individually or in combination by the prior cited references. However the Examiner respectfully disagrees, as subset (different from a *proper* subset, refer to the provided website reference for detailed explanation on subset) is not defined within the specification even considering whereby the Applicant is their own lexicographer, a subset in its common definition may include all elements of a set of which it is associated, as such the subset may be the maximum number of terminals. Therefore, the prior cited references to disclose the given claim limitation.

4. Applicant argues that the added limitation of defining a "household scope" as the subscriber site when read in light of the specification is not disclosed individually or in combination by the prior cited references. However the Examiner respectfully disagrees, where a household is considered a residential dwelling at a given location and a subscriber site is considered a to correspondingly be the same given location,

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“household scope” when read in light of the specification is still considered a set amount of possible terminals at a given location being the corresponding location of the subscriber site and the addition of the term household does not effectively change the interpretation of the associated claim limitation. Therefore, the prior cited references to disclose the given claim limitation.

5. Applicant argues that the added limitation of synchronizing database according to a common timestamp with a database residing at an identified terminal is not disclosed. However the Examiner respectfully disagrees, Applicant's admission of fact provides evidence that synchronizing a database to an identified terminal with the most recent time stamp is known in the art. Therefore, where the common timestamp is considered the most recent time stamp, the given claim limitation is disclosed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-19, 21-26, 28-32, and 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giglio et al. (US 2004/0039821 hereinafter Giglio) in view of Arnold et al. (US 2005/0108769 hereinafter Arnold) and further in view of Larson et al. ('DNS on Windows 2000' hereinafter Larson), Mouko et al. (US 6,678,732 hereinafter

Mouko) , Stapp et al. (US 7,152,117 hereinafter Stapp) and Simonnet et al. (US 2004/0210630 hereinafter Simonnet).

Regarding claim 1, Giglio discloses “a method of configuring a home entertainment network terminal at a subscriber site, comprising:” (abstract)

“provisioning the home entertainment network terminal by using DHCP services of a DHCP server residing at a service provider site” ([0018], Fig. 1 items 20-21, where a service provider site may be remote from the subscriber site or reside at the subscriber site) “to obtain a unique terminal identifier, wherein the DHCP services use DHCP option 43 to define a household scope of the subscriber site in which the household scope is defined to be equal to a maximum number of potential peer terminals at the subscriber site, wherein the DHCP services use DHCP option 15 to define a unique sub-domain name for the subscriber site, and wherein the DHCP services use DHCP option 12 to define a common host name” ([0008], [0024], [0027], option 43 is ‘vendor specific information’, scope is IP address pool, refer to RFC 2131 for use with options 12 and 15, both well known to those in the art for use during a DHCP process).

But, while Giglio teaches the use of assigning an IP address via DHCP to uniquely identify a terminal ([0005]) and acknowledging that IP addresses are not an optimum sole source for locating a specific device on a network when a terminal is constantly leaving and re-entering the network via DHCP ([0011]), Giglio does not explicitly state identifying the terminal via an address being a concatenation of the

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'terminal identifier' and the 'host name' or the 'host name' being selected to include a 'number for the terminal wherein the number falls within the scope'.

However, Mouko teaches the selection of the 'host name' including a number based on an available scope (col. 5 line 59 - col. 6 line 3, Fig. 8) and Larson teaches concatenating the host name from DHCP option 12, and the domain name from DHCP option 15, where the concatenation of the domain name with host name better identifies the terminal; hence the domain name acts essentially as a terminal identifier upon concatenation (pages 15-16, 'DHCP Server Behavior').

Further, Giglio does not explicitly state the following:

"carrying out a discovery process by attempting to contact each terminal within the sub- domain within the scope of the subscriber site defined by the DHCP option 43, wherein the discovery process is limited by the maximum number of potential peer terminals at the subscriber site; and

for each terminal at the subscriber site identified in the discovery process, synchronizing a database according to a common timestamp with a database residing at the identified terminal"

However, Arnold teaches connecting terminals to a network via a DHCP process ([0084]-[0085]) and subsequently initiating a discovery process with other terminals on the network to synchronize databases ([0113]-[0114]) and Simonnet discloses a periodic DHCP discovery process ([0010], [0089], Fig. 3A), to detect newly connected devices.

Further, Giglio does not explicitly state the scope being a subset of the maximum number of potential peer terminals residing at the subscriber site or a periodic rediscovery process.

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However, Stapp discloses via DHCP during client terminal discovery, the server allocating a subset of IP addresses from a pool of IP addresses to select networks (col. 12 lines 26-43, item 115b the Red bank of IP addresses and item 115a the Green bank of IP addresses are assigned a set scope from item 112 the entire address pool where the Red and Green bank are respectively associated with Red and Green networks, col. 12 line 61- col. 13 line 6 the use of subnets where Red and Green networks contain subnets where portions of the Red or Green networks are assigned a subset of the Red or Green pool)..

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Giglio for use of DHCP discovery and option 43 to define a scope with the teachings of Mouko for numerical numbering included in assigned DHCP hostnames based on an available scope with the teachings of Larson for concatenating a DHCP hostname of a terminal a terminal identifier and further with the teachings of Arnold for synchronizing databases of a newly connected terminal via DHCP to an older connected terminal on the network and further with the teachings of Stapp for defining a scope as a subset of the maximum number of potential peer terminals residing at the subscriber site and further with the teachings of Simonnet for a periodic DHCP rediscovery process. One would have been motivated to do so for the purpose of better identifying of a terminal via inclusion of numerical numbering in a hostname and concatenation of a hostname with an identifier where Giglio acknowledges IP addresses are not an optimum sole source for locating a specific device on a network (see Giglio [0011]) and further to provide up-to-date information

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desirable on a newly connected terminal available on an older connected terminal via synchronizing (see Arnold [0113]-[0114]) and further to use a scope being a subset of the maximum number of potential peer terminals residing at the subscriber site to account for only a fraction of the terminals being physically connected to the network actually being in use (see Stapp col. 1 lines 47-49) and further to use a periodic discovery process to determine any newly connected devices that were not detected in a prior discovery process.

Regarding claim 2, Giglio, Larson, Mouko, Arnold and Stapp disclose “the method according to claim 1, wherein the synchronizing comprises synchronizing to an identified terminal having a database carrying a most recent time stamp” (applicant's admission of fact provides evidence that synchronizing a database to one with the most recent time stamp is known in the art)

Regarding claim 3, Giglio, Larson, Mouko, Arnold and Stapp disclose “the method according to claim 1, wherein the synchronizing comprises synchronizing to an identified terminal having either a lowest or highest ordered identifier” (see Arnold [0113]-[0114], synchronizing to a single terminal, where if only one other terminal exists then the synchronizing must be to a lowest or highest ordered identifier).

Regarding claim 4, Giglio, Larson, Mouko, Arnold and Stapp disclose “the method according to claim 1, wherein the database comprises a transactional based database” (OFFICIAL NOTICE is taken that transactional based databases are well known and would have been obvious to use for the purpose of ensuring the integrity of the data in the given database, where if a transaction occurs with no errors it is considered complete and with errors there is a failure and either retry or cancel).

Regarding claim 5, Giglio, Larson, Mouko, Arnold and Stapp disclose “the method according to claim 1, further comprising determining that a re-discovery time has arrived and repeating the carrying out the discovery process and the synchronizing” (OFFICIAL NOTICE is taken that timeout limits and limited retry attempts are well known for the purpose of preventing an endless connection attempts and a single endless initial connection attempt).

Regarding claim 6, Giglio, Larson, Mouko, Arnold and Stapp disclose “the method according to claim 1, further comprising listing an identified terminal in a list of active terminals in the sub-domain” (see Arnold [0138]-[0140], certificate listing valid terminals in the sub-domain)

Regarding claim 7, The method according to claim 1, wherein the discovery process further comprises attempting unsuccessfully to contact a terminal, and marking

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the unsuccessfully contacted terminal as invalid on a list of active terminals in the sub-domain" (see Arnold [0138]-[0140], certificate listing valid terminals in the sub-domain, where OFFICIAL NOTICE is taken that marking terminals as invalid in a listing during discovery would have been well known for the purpose of more efficiently tracking terminals in a sub-domain).

Regarding claim 8, the claim has been analyzed and rejected for the same reasoning as 5 and 7 above.

Regarding claim 9, Giglio discloses "a method of configuring a home entertainment network terminal at a subscriber site, comprising:" (abstract)

"provisioning the home entertainment network terminal by using DHCP services of a DHCP server residing at a service provider site" ([0018], Fig. 1 items 20-21, where a service provider site may be remote from the subscriber site or reside at the subscriber site) to obtain a unique terminal identifier, wherein the DHCP services use DHCP option 43 to define a scope of the subscriber site, wherein the DHCP services use DHCP option 15 to define a unique sub- domain name for the subscriber site, and wherein the DHCP services use DHCP option 12 to define a common host name for the terminal;

provisioning the home entertainment network terminal by using DHCP services to obtain a unique terminal identifier, wherein the DHCP services use DHCP option 43 to

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define a scope of the subscriber site in which the scope is defined to be equal to a maximum number of potential peer terminals at the subscriber site, wherein the DHCP services use DHCP option 15 to define a unique sub-domain name for the subscriber site, and wherein the DHCP services use DHCP option 12 to define a common host name" ([0008], [0024], [0027], option 43 is 'vendor specific information', scope is IP address pool, refer to RFC 2131 for use with options 12 and 15, both well known to those in the art for use during a DHCP process, where a timeout limit and retry limit for a DHCP process is well known to those in the art).

But, while Giglio teaches the use of assigning an IP address via DHCP to uniquely identify a terminal ([0005]) and acknowledging that IP addresses are not an optimum sole source for locating a specific device on a network when a terminal is constantly leaving and re-entering the network via DHCP ([0011]), Giglio does not explicitly state identifying the terminal via an address being a concatenation of the 'terminal identifier' and the 'host name' or the 'host name' being selected to include a 'number for the terminal wherein the number falls within the scope'.

However, Mouko teaches the selection of the 'host name' including a number based on an available scope (col. 5 line 59 - col. 6 line 3, Fig. 8) and Larson teaches concatenating the host name from DHCP option 12, and the domain name from DHCP option 15, where the concatenation of the domain name with host name better identifies the terminal; hence the domain name acts essentially as a terminal identifier upon concatenation (pages 15-16, 'DHCP Server Behavior').

Further, Giglio does not explicitly state the following:

“carrying out a discovery process by attempting to contact each terminal within the sub- domain within the scope of the subscriber site defined by the DHCP option 43, wherein the discovery process is limited by the maximum number of potential peer terminals at the subscriber site; and

for each terminal at the subscriber site identified in the discovery process, synchronizing a database according to a common timestamp with a database residing at the identified terminal”

However, Arnold teaches connecting terminals to a network via a DHCP process ([0084]-[0085]) and subsequently initiating a discovery process with other terminals on the network to synchronize databases ([0113]-[0114]) and Simonnet discloses a periodic DHCP discovery process ([0010], [0089], Fig. 3A), to detect newly connected devices.

Further, Giglio does not explicitly state the scope being a subset of the maximum number of potential peer terminals residing at the subscriber site or a periodic rediscovery process.

However, Stapp discloses via DHCP during client terminal discovery, the server allocating a subset of IP addresses from a pool of IP addresses to select networks (col. 12 lines 26-43, item 115b the Red bank of IP addresses and item 115a the Green bank of IP addresses are assigned a set scope from item 112 the entire address pool where the Red and Green bank are respectively associated with Red and Green networks, col. 12 line 61- col. 13 line 6 the use of subnets where Red and Green networks contain subnets where portions of the Red or Green networks are assigned a subset of the Red or Green pool)..

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Giglio for use of DHCP discovery and option 43 to define a scope with the teachings of Mouko for numerical numbering included in assigned DHCP hostnames based on an available scope with the teachings of Larson for concatenating a DHCP hostname of a terminal a terminal identifier and further with the teachings of Arnold for synchronizing databases of a newly connected terminal via DHCP to an older connected terminal on the network and further with the teachings of Stapp for defining a scope as a subset of the maximum number of potential peer terminals residing at the subscriber site and further with the teachings of Simonnet for a periodic DHCP rediscovery process. One would have been motivated to do so for the purpose of better identifying of a terminal via inclusion of numerical numbering in a hostname and concatenation of a hostname with an identifier where Giglio acknowledges IP addresses are not an optimum sole source for locating a specific device on a network (see Giglio [0011]) and further to provide up-to-date information desirable on a newly connected terminal available on an older connected terminal via synchronizing (see Arnold [0113]-[0114]) and further to use a scope being a subset of the maximum number of potential peer terminals residing at the subscriber site to account for only a fraction of the terminals being physically connected to the network actually being in use (see Stapp col. 1 lines 47-49) and further to use a periodic discovery process to determine any newly connected devices that were not detected in a prior discovery process.

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Regarding claim 10, the claim has been analyzed and rejected for the same reasoning as 5 and 7 above.

Regarding claims 11-18, the claims have been analyzed and rejected for the same reasoning as 1-8 above respectively, where the apparatus performs the method.

Regarding claims 19 and 21-24, the claimed limitations have been analyzed and rejected for the same rationale as stated in claims 1-3, 5 and 7 above respectively.

Regarding claim 25, Giglio, Larson, Mouko, Arnold and Stapp disclose “the home entertainment network terminal according to claim 19, wherein the terminal comprises a television set-top box” (see Arnold Fig. 10, items 1003-1005).

Regarding claims 26 and 28-31, the claimed limitations have been analyzed and rejected for the same rationale as stated in where the computer readable storage medium storing instructions when executed performs the method of claim 1.

Regarding claim 32, 34-37, the claimed limitations have been analyzed and rejected for the same rationale as stated in claims 1-3, 5 and 7 above respectively.

Regarding claims 38-40 Giglio, Larson, Mouko, Arnold and Stapp disclose the use of a television set-top box (see Arnold [0036], Fig. 1 item 110)

8. Claims 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giglio et al. (US 2004/0039821 hereinafter Giglio), (US 2005/0108769 hereinafter Arnold), Larson et al. ('DNS on Windows 2000' hereinafter Larson), Mouko et al. (US 6,678,732 hereinafter Mouko) , Stapp et al. (US 7,152,117 hereinafter Stapp) and Simonnet et al. (US 2004/0210630 hereinafter Simonnet) in further view of Mckeown et al. (US 2004/0261116 hereinafter Mckeown) and Berkman et al. (US 2004/0135676)

Regarding claims 41-43 Giglio, Larson, Mouko, Arnold ,Stapp and Simonnet disclose the limitations of claims 1, 11 and 32. But, while Stapp states the number of terminals that can be physically connected on a network constantly changing and assigning a scope of varying degrees to the Red and Green networks and the Red and Green subnets, Stapp does not explicitly state the scope having a maximum of eight.

However, Mckeown discloses a scope management feature that may allow the service provider to edit, cut and add IP address ranges, or fractions of ranges, and update the scope of IP addresses on the DHCP and RADIUS servers from a central location (see Mckeown [1376]).

Further, Berkman discloses a DHCP discovery process where a subscriber site can have a maximum of eight terminals, where eight terminals are connected to each CID and the eight terminals associated with each CID is considered a subscriber site ([0197], [0223], [0233]).

Therefore, it would have been obvious at the time of the invention to combine the teachings of Giglio, Larson, Mouko, Arnold, Stapp and Simonnet for DHCP discovery and usage of varying scopes with the teachings of Mckeown for modifying a scope of IP addresses used by DHCP servers to a fraction of ranges or cutting IP address ranges, where the maximum scope available in a DHCP network and server has a finite number, refer above to Giglio where the maximum available ip addresses to assign via DHCP server is larger than eight, and Berkman discloses eight terminals at a subscriber site such that one having ordinary skill in the art would recognize that selecting an ideal number being the active terminals that would include the number eight as the fraction of the maximum scope if only eight terminals were active as the fraction of the maximum scope available in a DHCP network would have been well known in the art and have been motivated to try for the purpose of pro-active balancing of network resources (see Mckeown [1376]).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK P. STANLEY whose telephone number is (571)270-3757. The examiner can normally be reached on 8:00AM - 5:00PM Mon-Fri EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Mark P Stanley/
Examiner, Art Unit 2427

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2427